

SAND HILLS

RANGE SITE DESCRIPTION

PE 25-31 HP
PE 25-36 RR

Land Resource Area: High Plains & Rolling ^{Plains} Red

1. TOPOGRAPHY AND ELEVATION: This site occurs on undulating to hummocky sandy soils, often having areas of unstable dunes. Elevation varies from approximately 2000 feet (RR) to 4000 feet (HP).
2. SOILS:
 - a. The soils on the site are characterized as being loose and sandy. They are deep fine sands susceptible to wind erosion. Top soil generally averages about 4 feet in depth. The capacity to hold water and plant nutrients is poor.
 - b. Soil taxonomic units which characterize the site are: Tivoli fine sand.
 - c. Specific site location:
3. CLIMATE - See Field Office Climatic Description
4. CLIMAX VEGETATION:
 - a. The climax plant community is a tall grass prairie of sand bluestem, little bluestem, giant dropseed with smaller amounts of switchgrass and indiangrass, and needle and threadgrass interspersed with motts of shin and mohrs shin oak. Sand sage occasionally dots the landscape. Because this site is composed of low fertility soils, the herbage production is low in nutrient quality. Mature grass does not have the essentials to meet animal needs. Tall grass quality begins to drop by mid summer; by winter quality is low.

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Relative Percentages

Grasses	75%	Forbs	5%	Woody	20%
Sand bluestem	20	Perennial gaura		Shin oak	15
Indiangrass	15	Nientzelia		Mohra shin oak	
Switchgrass		Dayflower		Skunkbush sumac	
Little bluestem	10	Prairie clover		Yucca	
Sand lovegrass	5	Bush morningglory		Sand plum	5
Giant dropseed & spike dropseed	15	Wildbean		Sand sagebrush	
Giant sandreed	T	Illinois bundleflower		Western soapberry	
Perennial threeawn	T	Catclaw sensitivebriar		Southwestern rabbit- brush	
Sand dropseed	5	Spider wort			
Sand paspalum	15	Queen's delight			
Hairy grama		Oenothera species			
Sideoats grama	15	Four o'clock			
Plains bristlegrass					
Needle & Threadgrass	T				
Can & Silver bluestem	5				
Hooded windmillgrass	5				
Red lovegrass	T (Inv)				

b. As retrogression occurs the more desirable tall grasses give way to an increase in sand dropseed and threeawn. Eventually, following continued overgrazing, other plants to invade are red lovegrass, perennial broomweed, gummy lovegrass, tumble lovegrass, queen's delight and numerous annuals. At the same time there is a rapid spread of shin oak and yucca. Scattered mesquite may occur.

c. The approximate total annual air dry herbage yields in excellent condition varies from 1000 to 2000 pounds per acre, depending on rainfall.

The site is so fragile that with overgrazing active soil movement occurs quite readily. Plant density is not as high as on a sandy site.

- WILDLIFE NATIVE TO THE SITE: The site is inhabited by antelope, dove, quail, prairie chicken and rabbits. A wide variety of plants, forbs and grasses which grow on the site provide good cover and seeds for game animals and birds.
- AESTHETIC AND RELATED VALUES: Deep sand make the site inaccessible except by foot or a 4-wheel drive vehicle. Heavy traffic of any kind should be discouraged due to extreme erodability. Some of the native forbs are quite colorful in the summer. Site is limited in its aesthetic value.

7. HYDROLOGIC CHARACTERISTICS: Deep sands which are rapidly permeable inhibit runoff. A good plant cover is essential to hold wind erosion in check; water erosion is not a problem.

3. GUIDE TO INITIAL STOCKING RATE:

	Percentage	
a. <u>Condition Class</u>	<u>Climax Vegetation</u>	<u>AC/AU/YL</u>
Excellent	76 - 100	25 - 35
Good	51 - 75	33 - 45
Fair	26 - 50	43 - 65
Poor	0 - 25	60+

9. RELATIVE FORAGE VALUE OF SPECIES:

a. <u>Cattle:</u>		
<u>PRIMARY*</u>	<u>SECONDARY*</u>	<u>LOW VALUE*</u>
Indiangrass	Sand dropseed	Shin oak
Switchgrass	Hooded windmillgrass	Sand sagebrush
Little bluestem	Fall witchgrass	Tumblegrass
Sand bluestem	Sand paspalum	Grassbur
Sideoats grama		Perennial threeawn
Sand lovegrass		
b. <u>Quail, Dove, and Prairie Chicken:</u>		
<u>PRIMARY**</u>	<u>SECONDARY**</u>	<u>LOW VALUE**</u>
Western ragweed	Sand dropseed	Other grasses
Croton	Catclaw sensitivebriar	
Bundleflower	Panicum	
Euphorbia species	Palafoxia	
Sand paspalum	Spectacle pod	
Sunflower		
Oak mast		
Erect dayflower		
Mentzelia		
c. <u>Antelope:</u>		
<u>PRIMARY</u>	<u>SECONDARY</u>	<u>LOW VALUE</u>
Annual forbs	Skunkbush sumac	Most grasses
Gaura species	Yucca blooms	
Mentzelia	Sand sagebrush	
Bundleflower	Havard oak	
Bush morningglory		

DATE: _____

APPROVED BY: _____

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